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WILLIAM BRIGGS, M.D. (1650-1704)

BY

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LONDON

ACCOUNTS of the work of William Briggs have long been available in Munk's *Roll of the Royal College of Physicians* and in the *Dictionary of National Biography*; but it may not be out of place to notice him in this journal as an ophthalmologist of the seventeenth century, a date when qualified ophthalmologists were few and far between.

The Briggs family was of respectable antiquity in East Anglia. The pedigree printed in Blomefield and Parkin's *History of Norfolk* (1808) begins with a William atte Brigge, of Salle, *temp.* Edward the First and Second, and living at Salle in 1334. From this William descended Augustine Briggs, son of Thos. Brygge, Esq., of North Wotton, 1546; whose son, Augustine Briggs, of Norwich, was the father of our ophthalmologist.

Augustine Briggs junior was born in 1617 and died in 1684. His wife's name was Elizabeth Aldred. He was a prominent citizen of Norwich. Elected Alderman in 1660, he was named as one of the Aldermen in the new charter given to the City by Charles the Second in 1663. He was Mayor of Norwich in 1670; and in the year 1667 was elected Burgess of Parliament for the City without opposition. This post of M.P. was retained by him at three subsequent elections. Augustine was a benefactor to the City; for, by his will, he made provision for the Boys' and Girls' Hospital (*i.e.*, schools) of the City, and he left a sum of money (£200) to the Mayor and Corporation, the interest on which was to be used yearly for putting two poor boys to convenient trades. These boys were to be chosen from his own ward if possible and in the event of no candidate being forthcoming in any year the

interest was to be added to the money in the hanaper (city treasury). William Briggs was his second son. As he was thirteen years of age when he was admitted at Corpus Christi College, Cambridge in 1663,¹ it is obvious that he must have been born in or about the year 1650. He matriculated at Easter, 1663, and was under the care of Dr. Tenison, later Archbishop of Canterbury. He proceeded B.A. in 1666-7; M.A. in 1670; and M.D. in 1677. He was a fellow of his College 1668-1682. On October 26, 1670, he was incorporated at Oxford and then spent some time abroad at the continental schools, visiting Montpellier to work with Vieussens. Briggs was admitted a candidate of the College of Physicians in 1680 and a Fellow in 1682. In that year he gave up his Fellowship at Cambridge and presumably settled in London, for he was appointed Physician to St. Thomas's Hospital in the same year. He was a Censor of the College of Physicians in 1685, 1686 and 1692. He was also Physician in ordinary to King William the Third.

Dr. Briggs married Hannah, daughter and heiress of Edmund Hobart, of Holt, a scion of the Hobarts of Blickling, Co. Norfolk, and died at Town Mallings, in Kent, on September 4, 1704; and was buried there on September 11. He left three children, Mary, wife of Thomas Bromfield, M.D., of London; Henry; and Hannah, wife of Dennis Martin, gent. of Loose, in Kent.² Munk gives a transcript of a long epitaph to his memory erected by his son, Henry Briggs, S.T.P., in the latter's parish church of Holt in Norfolk. This epitaph appears to have escaped the notice of Blomefield and Parkin as they do not mention it. From it we learn that Dr. Briggs was F.R.S., and that after settling in London, "he practised with great success, and soon became very eminent in his profession. He was particularly famous for his exquisite skill in difficult cases of the eye, and published two valuable treatises upon that subject."

The librarian of the Royal Society kindly informs me that although William Briggs seems to have been recognized by his contemporaries as F.R.S. there is no evidence on the records to show that he was ever proposed or regularly seconded. His name does not appear in the list of fellows, nor did he sign the charter book. There are no letters of his in the letter-books of the Society.

Munk also states that "Dr. Briggs was the author of some interesting papers in the Philosophical Transactions, and of:—

Ophthalmographia, sive Oculi ejusdem partium Descriptio Anatomica: cui accessit Nova Visionis Theoria. 12mo. Cantab. 1676."

The hypothesis of vibrations as an explanation of the phenomena of nervous action, writes Dugald Stewart, first attracted public notice in the writings of Dr. William Briggs. It was from him that Sir Isaac Newton derived his anatomical knowledge; along



with which he appears plainly from his *Queries* to have imbibed also some of the physiological theories of his preceptor.'"

Dr. Briggs's portrait, by R. White, was engraved by J. Faber; this very fine mezzotint is reproduced here by kind permission of the council of the Royal Society of Medicine.

This is perhaps the best place in which to correct a small slip in Garrison's *History of Medicine*, where it is stated that William Briggs described the papilla of the optic nerve in 1636. I fancy that this must be an error and that the year 1676 is meant. It is rather surprising that the *Bibliotheca Osleriana* does not appear to contain a copy of either of Dr. Briggs's works. The Bowman Library possesses copies, as do the libraries of the Royal Society of Medicine, the Royal College of Surgeons and the Medical Society. They seem to have been popular in their day for each ran through more than one edition.

Ophthalmographia

This is a duodecimo in Latin of 80 pages excluding the preface, dedication and a rather full synopsis of the contents of the chapters. There are two plates of illustrations which are crude. First published in 1676, the title page is as follows:—

Ophthalmo—graphia, /sive/Oculi ejusdem partium de—/scriptio/Anatomi-ca
/Authore/Guilielmo Briggs A. M. & Coll. Corp./Christi in Acad. Cantab.
Socio. /Cantabrigiae, /execudebat Joan. Hayes, Celeberrimae Academiae
Ty/-pographus, impensis Jon. Hart Bibliopolae/Cantab. 1676./

It is dedicated to Ralph Montagu, Esq., Member of the Privy Council and late Ambassador to the King of France. Briggs acknowledges here, and in his preface, the debt he owes to Vieussens of Montpellier.

The second edition, also of 80 pages, was published in 1687. The title pages of the two copies in the library of the Royal Society of Medicine are slightly different from that of the first edition. The first page repeats the Latin title exactly, and goes on:—

per Guilielmum Briggs, M.D. Coll. /Medic. Londin. Socium, & Nosocomii
Re-/gal. (quod Dr. Thomae dicatur) Medicum/Ordinarium./Editio Secunda
ab Auctore recognita. /Londini: /Typis M.C. Impensis Ricardi Green,
Bibliopolae/Cantabrigiensis, MDCLXXXVII./

The second title page follows that of the first edition as far as *Socio*, and then has:

Londini, /Typis M. C. Impensis Richardi Green Bibliopolae/Cantabrigiensis.
MDCLXXXVII./

It would appear to be a reprint of the first edition and the illustrations are the same in each.

It would be unfair to judge the anatomy in this little book by present day standards. The external parts together with the muscles

are fairly well described. In dealing with the obliques Briggs cannot refrain from calling attention to their supposed action in lovers and in the dying by interlarding a quotation from the *Aeneid*, Book 4.

“oculisque errantibus alto
quaesivit caelo lucem ingemuitque reperta.”

Dido, rolling on her couch, “and with wandering eyes she sought the light in high heaven, and, as she found it, moaned.”

Anatomists had the haziest notions as to the origin of the tunics of the eye at this date. It was generally thought that they were developed from the optic nerve and its sheaths; the nerve providing the retina and the dura and pia the sclero-cornea and choroid. In dealing with the retina Briggs specially notes and figures the papilla. But knowledge was gradually accumulating and we no longer find the lens filling the whole of the inside of the eye as in most of the earlier diagrams; and the retina is postulated as the percipient layer and not the choroid, while the function of the lens in transmitting and refracting the light is recognized. A chapter is devoted to the arteries, veins and optic nerve, in which “animal spirits” figure largely. Next follows an account of the lacrymal gland and a short chapter on peculiarities in structure of animals’ eyes.

Marriotte discovered the blind spot in 1668 and as Briggs mentions his name we may conclude that his book was well up to date considering the age in which he lived.

Briggs was practically a contemporary of Sir Isaac Newton at Cambridge.

It is not so much on account of his *Ophthalmographia* that Briggs deserves rescuing from ophthalmic oblivion as on that of his *Nova Visionis Theoria*.

The copy of this work in the library of the Royal Society of Medicine is entitled *editio altera* and is bound up with the second edition of the *Ophthalmographia*; the *Nova Visionis Theoria* being given pride of place. It contains on the title page the signature of “Tho. Wallis. Magd. Coll. Cant. 1718” and a note of the price paid for it, viz. 1/6. Some little time ago I saw a copy for sale in a second-hand catalogue for two guineas, so that its value has appreciated.

The title page runs as follows:—

Nova Visionis/Theoria,/Regiae Societati Londin./proposita./per Guilielmum Briggs, M.D. Col-/leg. Medic. Londin. Socium, &/Nosocomii (quod Dr. Tho-/mae dicatur) Medicum ordinarium. /Editio Altera. /Londini: /Typis J. P. Impensis Sam. Simpson, /Bibliopol. Cantabrig. & prostant/venales apud Sam. Smith, ad in-/signia Principis in Caemeterio D./Pauli, Londin. 1685./

The copy in the Bowman Library is exactly the same. The dedication is a fulsome production to James the Second, and is



L. White delin 1697

William Briggs M.D. Physician



in Ordinary to King William 3^d

Fellow of the College of Physicians

and of the Royal Society, &c.

Sold by L. Vernon in Fleet Street

1 Edin. post 1758

WILLIAM BRIGGS, M.D. 1650—1704

followed by a letter to the author from Sir Isaac Newton, and a *praeoquium* to the reader. The actual text comprises 80 duodecimo pages and there is a formidable illustration which is reproduced here by permission of the Council of the Royal Society of Medicine.

But, before discussing Briggs's New Theory, which, according to Hirschberg³ "is no theory at all though extolled by A. Hirsch," it may be of interest to record that the Bowman library possesses another copy of both works bound together in one volume 16mo. of 312 pages. This little book was published in Holland in 1686, with an engraved title page which is reproduced, by permission, here.



Title page of 1686 Edition.

This engraved page is followed by a title page in which the titles of the two books are amalgamated as follows :—

Guilielmi Briggs/Med. Doct. Colleg. Med. Londin. Soc. &/Nosocomii Regal.
(quod D. Thomae dica-/tum est) Medicini Ordinarii, /OPHTHALMO-
GRAPHIA, /Sive/Oculi ejusdem partium/descriptio anatomica, nec non,
/EJUSDEM/NOVA VISIONIS THEORIA, /Regiae Societati Londinensi/
proposita. /Lugd. Batavor. /Apud PETRUM vande Aa. /MDCLXXXVI./

This appears to be merely a reprint of the original editions, though, as there are fewer words to the line of print, the pagination is different. The illustrations are the same. It is in contemporary

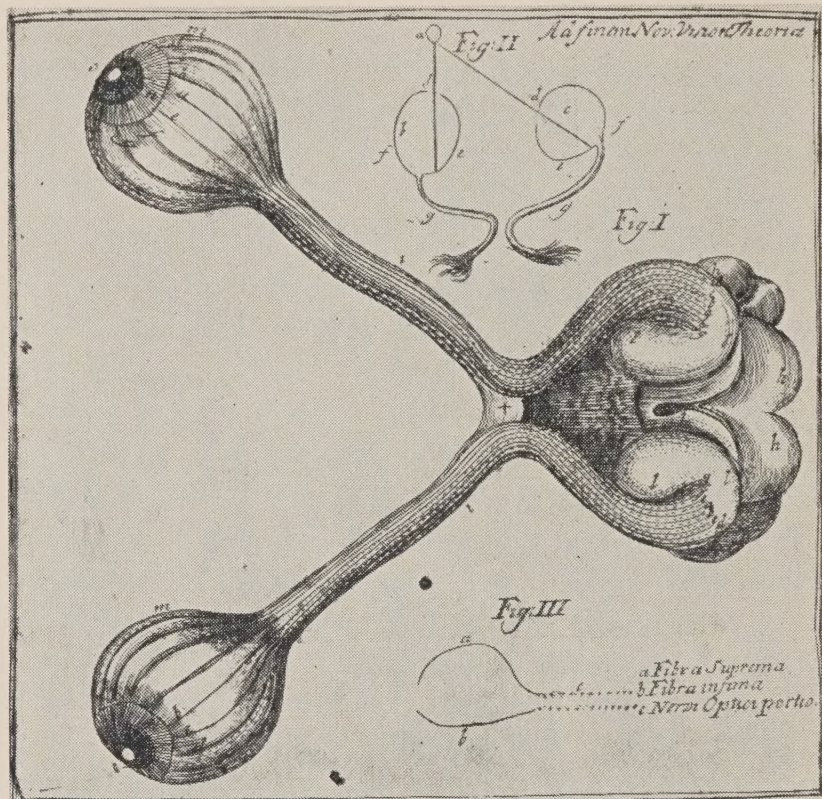


Illustration in the *Nova Visionis Theoria*.

vellum binding and in recording the title on the back, the binder has deprived the author of one of the "g" letters of his name; he appears as "Brigs."

Briggs's preface to the *Nova Visionis Theoria* calls attention to the fact that the *Ophthalmographia* has been already published and hints that he intends to publish later two tracts: one, *de usu partium Oculi*; the other, *de ejusdem affectibus*, if God be pleased to prolong his life.

The *Nova Visionis Theoria* was propounded before the Royal Society in 1681. I find that the index of the *Philosophical Transactions* lists three communications under Briggs's name. (a) A Discourse about vision, with an examination of some late objections, Vol. XIII, 171. (b) Two remarkable cases in vision. XIV. 559. (c)

Philosophic solution of a case of a young man who grew blind in the evening. XIV, 804. The first of these three contains practically the final 45 pages of his little book, with the exception that in the *Transactions* it is given in English and in the *Nova Visionis Theoria* in Latin. He says that a specimen of his thoughts about vision appears in Mr. Hook's *Philosophical Collection*, No. 6. I assume that this reference will include the first 35 pages of his *Theoria*.

Briggs tries to show that the fibres of the optic nerve as rising from the two protuberances of the *thalami optici* are more concerned in vision than either cornea, humours, or retina (as considered by writers on optics). Sensation is performed chiefly in the brain, and these and other parts are but *transennae* to it; but also "because in Amaurosis or Gutta Serena, these parts are free from any indisposition: *i.e.*, the fibres of the optic nerve must be chiefly affected, either by obstruction by tumour, or the roots of 'em comprest about the *thalami*." He sought to prove that the superior fibres in each thalamus have the greatest tension and the inferior the least. Unless a corresponding tension exists on the two sides double vision will result. The retina examined in a glass of clear water looks like lawn or tiffany. He refers to the vibrations in a spider's web whereby impulses are conveyed from the periphery to the centre. "Rays of light strike correspondent fibres and the percussion or vibration being towards the bottom or papilla of the eye is conveyed to the nerve." "The retina is no more transparent if so much as the oil'd paper in a lantern: being white it is better able to take the images of coloured objects than the dark shade of the choroides."

Briggs's metaphor of a spider in the midst of its web, and the fibres of the retina conveying vibrations to the papilla and so to the optic thalami is distinctly pleasing.

I think that most people will agree with Hirschberg in saying that his theory is no theory at all; but I am inclined to think that he used the Latin word *theoria* and the same word in Greek, as occurs in various parts of his thesis, to give the impression of "reflections on or thoughts concerning" vision, rather than the usual meaning of the word. The extracts I have given from this little book are sufficient for the purpose of this paper.

Briggs's second communication to the *Philosophical Transactions* is under date, 20 May, 1684. He gives an extract from a letter (undated) received from Dr. Peter Parham, of Norwich, who reported the case of a boy, aged about 20 years, in the service of a gentleman in Suffolk, "who saw acutely and strenuously by day and was just like a post when sun set. When twilight came on he was as blind as a beetle, sees nothing, runs against gates, posts, rails, (anything either higher, lower, or level to his eyes). In doors

he tumbles over stools and runs his head against doors.” Briggs examined the boy by daylight and in the dark and found no abnormality in the eyes. He satisfied himself that spectacles were of no use; and was inclined to attribute the lesion to the humours. He then relates another case which he saw with Dr. Wm. Dawkins, at St. Thomas’s Hospital. It was that of a young man who was taken with dizziness and pain in the head (vertex), which he imputed to the cold weather. He went at first to a quack and was given a plaister. The pain got worse; fits made their appearance, tremor in the arms and legs and then double vision. His right eye went blind which did away with the diplopia. The treatment is outlined at some length; but the man died, and Briggs bewails the fact that he did not obtain a post-mortem examination.

The third paper is merely a short note in Latin on the case of the boy who was night blind.

The *Nova Visionis Theoria* went out to the world with the blessing of Sir Isaac Newton, in a rather fulsome letter, in Latin, dated: Cambridge, 7, *Kal. Maii*, 1685.

Search in the Commissary Court of London and in the Prerogative Court of Canterbury has failed to discover Briggs’s will. It is just possible that it may be at Canterbury. Nor was the warrant for his royal appointment discovered at the Public Record Office. The *Sloane MSS.* 4221, *f.* 189 gives a short account of Briggs which agrees closely with the account of him in Munk’s Roll.

Sloane MSS. 1047, 7D gives a most interesting letter addressed to Briggs. It is as follows:—

“Lyn, Oct. ye 26th, 1681.

Worthy Sir,

I have used Cortex Peruv. much for our agues, which have been very plentiful here. I have observed in four persons my patients, that upon taking the 2nd dose (3 ii) they have been after 2 or 3 hours space, taken with a dimnesse, strange of sight. In a gent. aged about 46 itt took his sight away for 24 hours, and has not yett thoroughly recovered his sight, but useth spectacles to this day. In a maid servt., aged 23, itt took away her sight for three days that she could not see the way downstairs, but afterwards recovered; in a gentlewoman for severall houres, and a young gentleman the very same. I myself have been vext with an ague 14 months, and it continues still, I have taken in three quarts. of a year 3 XIV of this cortex, itt relieved me generally for a fortnight, seldom longer, Tr. Sacra was advised by Dr. Short.

Sr. I am, yr. servt.

to Dr. Briggs.

Simon Blenckerne.”

Sydenham is generally credited with having introduced Peruvian bark into English therapeutics for cases of ague. I am indebted to Mr. Duke-Elder for the notes which follow:—"the active principle of quinine was isolated in 1820 by Caventon and Peketier. Beraudi (1829) seems to have been the first to report headache, tinnitus and dimness of vision following its use. The first reported case with ophthalmoscopic examination appears to be that of von Graefe, in 1857. Both Leber and Hirschberg quote this, of von Graefe, as the first case." It is of interest to note that a general practitioner at King's Lynn anticipated the observation by more than a hundred years. In the same series of letters(*Sloane MSS.* 1047) occurs one from John Wright, of Peterborough, dated 25 September, 1681. Addressed to Dr. Briggs, it gives details of two cases, but they are of no ophthalmological interest. The first deals with the case of a marasmic baby who died convulsed during teething; the second, with the case of a man, aged about 60 years, with gonorrhoea, the details of which are not fit for publication.

The portrait of Briggs shows the family coat of arms. This is emblazoned "gules, 3 bars gemelle or, a canton argent." The sinister side of the shield contains the arms of his wife, the Hobart coat.

I am indebted to the librarians of the Royal College of Surgeons and of the Royal Society of Medicine for assistance in the preparation of this paper; to Miss Blake, for the illustrations, and to Mr. Harvey Bloom for researches at the Public Record Office, the British Museum and Somerset House. I am also indebted to Mr. Arnold Sorsby for assistance with the German reference.

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 2. Hasted.—*History of Kent*, Vol. II, p. 219.
 3. Hirschberg.—*Geschichte der Augenheilkunde*, 2nd edition. *Graefe-Saemisch Handbuch der gesamtem Augenheilkunde*, Vol. XII, Part 2.
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